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| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/646,602 | KADOWAKI ET AL. | |
| | Examiner MUHAMMAD N. EDUN | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the amendment filed on 10/27/06.
2. The allowed claim(s) is/are 12-16, 33-35, 62, 36, 45, 37-39, 42, 46 and 47 (now 1-17 respectively).
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date _____
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of species of Figs. 20-23 (directed to claims 12-16, 33-39, 42, 45-47 and 62) in the reply filed on 10/27/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

This application is in condition for allowance except for the presence of claims 1-11, 17-32, 40-41, 43, 44, 48-61 and 63-79 directed to species non-elected without traverse, as noted above. Accordingly, claims 1-11, 17-32, 40-41, 43, 44, 48-61 and 63-79 will be cancelled, see Examiner's Amendment below.

Note also dependent claims 13, 33-39, 42, 46, 47 and 62 are multiple dependent claims that depend on claims non-elected, and would therefore be improper. However the dependency of the claims will be amended (by the Examiner's Amendment below) to reflect only the dependency of claim 12 (which is elected by applicant), in order to place the claims in better form for allowance.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In The Claims

Cancel claims 1-11, 17-32, 40-41, 43, 44, 48-61 and 63-79.

In claim 13, lines 1-2, delete "any one of claims 8, 11 and 12" and replace with --claim 12--.

In claim 33, lines 1-2, delete "any one of claims 2, 6, 11, 12, 17, 22, 23, and 28" and replace with --claim 12--.

In claim 34, lines 1-2, delete "any one of claims 2, 6, 11, 12, 17, 22, 23 and 28" and replace with --claim 12--.

In claim 35, lines 1-2, delete “any one of claims 2, 6, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 36, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 37, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 38, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 39, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 42, lines 1-2, delete “any one of claims 1, 6, 11, 12, 22 and 23” and replace with --claim 12--.

In claim 46, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 47, lines 1-2, delete “any one of claims 1, 6, 11, 12, 17, 22, 23 and 28” and replace with --claim 12--.

In claim 62, lines 1-2, delete “any one of claims 35, 49, 50 and 60” and replace with -- claim 35--.

Prior Art Citation

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakamura et al. (7,116,624), Kataoka et al. (US 2006/0104183), both discloses an optical disk apparatus having an optical head including photodetectors for detecting tracking error signal by the push-pull method.

Reasons For Allowance

The following is an Examiner's Statement of Reasons for Allowance:

The prior art of record alone or in combination does not teach or suggest the optical information apparatus having the combination of elements with their recited structure, arrangement and functions, along with having the optical recording medium has tracks arranged substantially at a constant pitch, an average of the pitch is tp , the beams are received by the plurality of light-receiving portions, and the tracking error signal generator performs a differential arithmetic operation with respect to the signals output from the light-receiving portions to generate a push-pull signal, and in a case where an amplitude of the push-pull signal, obtained at a pitch tp when the light beam is scanned in a direction orthogonal to the tracks of the optical recording medium, is changed at a pitch different from the pitch tp , the push-pull signal is generated without using a region in a vicinity of a center of the beam, as set forth in claims 12-16, 33-39, 42, 45-47 and 62.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUHAMMAD N. EDUN whose telephone number is 571-272-7617. The examiner can normally be reached on FLEXITIME.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MUHAMMAD N EDUN
Primary Examiner
Art Unit 2627